

of the runflat tire include the sidewall insert. The Applicant submits that the specific location is not required to make the claim definite.

The Examiner rejected claims 1, 7-17, 21, 22, and 24-32 as being indefinite because the language "the body ply" did not have literal antecedent basis because claims 1 and 9 initially recited "at least one body ply". The Applicant has thus amended independent claims 1 and 9 to provide direct antecedent basis for the recitation of "the body ply". The Applicant thus submits respectfully requests the Examiner to withdraw the § 112 rejection.

The Applicant respectfully traverses the § 112 rejection of claims 12-17, 32, and 33 as discussed above.

The Examiner rejected claims 1, 7-11, 21, 22, 32, and 33 as being obvious in view of the combination of Boileau '913 and Spragg '980. This set of claims includes independent claims 1, 9, and 32 with the remaining rejected claims being dependent claims. The Applicant has again reviewed the combination cited by the Examiner and respectfully traverses the rejection.

The Examiner cites the reasons supporting the combination of references from the previous Office Action wherein the Examiner admits that Boileau '013 is silent about runflat capabilities and runflat tire sidewall inserts. The Examiner argues that the use of sidewall insert technology is "extremely well known" and "conventional" and cites Spragg '980 to provide an example. The Examiner then argued that Boileau teaches the use of sidewall inserts to change the characteristics of a tire sidewall and that this teaching provides the motivation to one of ordinary skill in the art to use the Spragg '980 runflat tire sidewall inserts to modify the sidewalls of Boileau to achieve the claimed invention. The Applicant respectfully traverses the Examiner's conclusion and submits that the Examiner has failed to establish a *prima facie* of obviousness and, in the alternative, submits that secondary considerations overcome any establishment of a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combines) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. MPEP § 2142.

The Applicant submits that a *prima facie* case of obviousness has not been established because the basic criteria are not met by the combination of references. There is no suggestion or motivation in the references cited by the Examiner that would lead one of ordinary skill in the art to modify the Boileau '913 tire to have the Spragg '980 insert in order to meet the limitations recited in Applicant's claims. The Applicant understands the Examiner's identification of the motivation to be found in the Boileau '913 reference wherein Boileau discloses that a rubber layer (25) is disposed in the sidewall as shown in Fig. 6. The Examiner contends that one of ordinary skill in the art would be motivated by the use of the rubber layer (25) of Boileau '913 to use the runflat sidewall insert of Spragg '980 in the manner recited in the claims. The Applicant respectfully submits that the rubber layer (25) of Boileau '913 teaches away from runflat sidewall inserts such as those recited in the claims and disclosed in Spragg '980. One of ordinary skill in the art would thus not be motivated by the Boileau teachings to make the combination presented by the Examiner.

Runflat sidewall inserts such as those disclosed in Spragg '980 are designed to maintain sidewall stiffness in an underinflated or uninflated (zero pressure) running condition. The Boileau '913 references discloses sidewall inserts designed to create a break point in the lower portion of the sidewall where the sidewall may flex. The Applicant submits that one of ordinary skill in the art would be motivated by the Boileau reference to provide only sidewall inserts that allow the sidewall to flex. Those of ordinary skill in the art at the time the invention was made would thus not be motivated by the Boileau '913 inserts to look at runflat tire sidewall inserts

that maintain the stiffness of a tire sidewall. One of ordinary skill in the art would not be motivated because Boileau is teaching away from the goals of the runflat tire sidewall inserts. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the Applicant." *In re: Gurley*, 31 USPQ.2d 1130, 1131 (Fed. Cir. 1994). The Applicant submits that the Boileau '913 reference leads in a direction divergent from the path of the claimed invention. The Boileau '913 reference thus teaches away from the combination presented by the Examiner and thus cannot provide the suggestion or motivation required to form a *prima facie* case of obviousness. The Applicant thus respectfully requests the rejection to be withdrawn.

The Applicant further submits that the proposed modification of the Boileau reference with the Spragg '980 insert would render the Boileau '913 device unsatisfactory for its intended use because the addition of the Spragg '980 insert would prevent the Boileau '913 sidewall from flexing at the break point as described in the Boileau '913 reference. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re: Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), MPEP 2143.01, page 2100-124. The Applicant further submits that the Examiner's proposed modification changes the principle of operation of the Boileau '913 sidewall. Again, the addition of the sidewall insert from Spragg '980 prevents the Boileau '913 sidewall from flexing at its desired location and thus changes the principle of operation of the Boileau '913 tire. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re: Ratti*, 123 USPQ 349 (CCPA 1959), MPEP 2143.01, page 2100-125.

In addition to the lack of the suggestion or motivation, the Applicant further submits that a *prima facie* case of obviousness has not been established because

the Examiner has not identified a reasonable expectation of success in the references.

The Applicant alternatively argues that any establishment of a *prima facie* case of obviousness can be overcome by the secondary consideration that cantilevered sidewalls and runflat tires have coexisted in the art for a long period of time without any persons of ordinary skill in the art having combined the teachings to create a runflat tire with cantilever sidewall construction meeting the limitations of the present claims.

At this time, the Applicant submits that the dependent claims pending in the application are independently patentable over the art but has focused on the independent claims believing that each of the independent claims now pending is patentable over the art. The Applicant thus submits that specific arguments related to the dependent claims and the Examiner's rejections of these dependent claims are not required at this time.

In addition to the Boileau and Spragg rejection discussed above, the Examiner rejected claims 1, 7-12, 32, and 33 as being unpatentable over Paonessa '602 and Boileau '913. With respect to this rejection, the Examiner contends that Paonessa '602 discloses a runflat tire having sidewall inserts. The Examiner admits that the reference does not depict a cantilever design. The Examiner cites Boileau '913 as suggesting the use of a cantilever design and concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cantilever design, as suggested by Boileau, in the general runflat tire design of Paonessa. The Applicant has reviewed the Examiner's reasoning set forth in Paper No. 4 and the Examiner's reasoning set forth in the present Office Action and cannot find where the Examiner identifies the suggestion or motivation to make this combination of references. To the best of Applicant's understanding, the Examiner appears to contend that Boileau discloses that greater rigidity of the sidewalls may be maintained while increasing the radial extensibility and compressibility of the sidewalls and that one of ordinary skill in the art would be

motivated to change the Paonessa '602 sidewall because Boileau discloses these benefits. The Applicant respectfully traverses the rejection.

In order to establish a *prima facie* case of obviousness, the Examiner must identify some suggestion or motivation from the references for making the combination presented by the Examiner. The Applicant again submits that there is no suggestion in either Paonessa or Boileau for making this combination. Paonessa discloses a standard runflat tire having sidewall inserts that increase the rigidity of the sidewall throughout the length of the sidewall. Boileau, on the other hand, discloses a tire sidewall construction having a specific break point where the tire is designed to flex. There is no suggestion or motivation in Paonessa that can be identified that would lead one of ordinary skill in the art to look to a cantilever sidewall construction. Furthermore, there is no suggestion or motivation in the Boileau reference for combining its sidewall construction with a runflat tire sidewall insert. In fact, Boileau teaches away from such a sidewall insert and thus does not provide the requisite suggestion. Further, as explained above, the combination of Boileau's teachings into Paonessa would render the Paonessa structure unusable for its intended purpose because the Paonessa sidewall would be designed to flex at a specific point along its length. The Applicant thus respectfully requests the rejection to be withdrawn.

The remaining rejections of dependent claims based on the Paonessa reference are respectfully traversed. The Applicant submits that each dependent claim is independently patentable over its independent claim but has not specifically responded to the rejections submitting that the independent claims are patentable.

In view of the foregoing, the Applicant respectfully requests reconsideration of the claims and most earnestly solicits the issuance of a formal notice of allowability for the claims. If any issues remain after this amendment, the undersigned attorney would welcome a telephone call.

Respectfully submitted at Canton, Ohio this 28<sup>th</sup> day of August, 2002.

SAND & SEBOLT

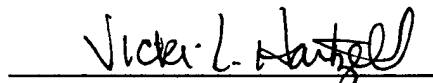


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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence (Amendment B in response to the office action dated May 28, 2002, in application serial no. 09/607,070 filed June 29, 2000) is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, BOX NON-FEE AMENDMENT on this 28<sup>th</sup> day of August, 2002.

  
Vicki L. Hartzell



**Amended Claims With Markings to Show Amendment**

(Twice amended) A runflat tire having an axis of rotation, the tire comprising:  
a pair of axially-spaced bead portions; each having a bead core;  
a pair of axially-spaced sidewalls;  
at least one body ply;  
each of the sidewalls including a sidewall insert disposed axially inwardly of the at least one body ply; the sidewall insert being adapted to support the sidewall in a runflat operating condition; and  
each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead core.

9. (Twice amended) A runflat tire having an axis of rotation, the tire comprising:  
a pair of axially-spaced bead portions; each having a bead core;  
a pair of axially-spaced sidewalls;  
at least one body ply;  
each of the sidewalls including a sidewall insert disposed inwardly of the at least one body ply; the sidewall insert being adapted to support the sidewall in a runflat operating condition;  
each of the sidewalls having a radial portion and a cantilever portion, the cantilever portion being cantilevered with respect to the bead core; and  
the bead portion including an axially outer end disposed adjacent the radially inner end of the sidewall insert.

33. (Once amended) The tire of claim 32, wherein the sidewall insert is disposed inwardly of the at least one body ply.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B60C3/04 B60C17/00 B60C3/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 044 884 A (PEDA KARL) 4 April 2000 (2000-04-04)	1-12, 21, 23
Y	column 4, line 39 - column 4, line 65; figure 1	24-28
A	column 5, line 31 - line 37; figure 3	30
Y	FR 2 778 367 A (MICHELIN & CIE) 12 November 1999 (1999-11-12) page 6, paragraph 4; figure 1	24-28
A	US 3 486 547 A (POWERS ROBERT POPE) 30 December 1969 (1969-12-30) cited in the application column 3, line 50 - column 4, line 6; figures 1, 2	1, 30

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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 418 293 A (JOHN MACMILLAN) 17 October 1934 (1934-10-17) page 6, line 69 - line 83 page 7, line 24 - line 30; figure 7 -----	1,24

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6044884	A	04-04-2000	DE 19722521 A1 EP 0881105 A2	03-12-1998 02-12-1998
FR 2778367	A	12-11-1999	FR 2778367 A1 BR 9910330 A CN 1300253 T WO 9958352 A1 EP 1089886 A1	12-11-1999 30-01-2001 20-06-2001 18-11-1999 11-04-2001
US 3486547	A	30-12-1969	US 3392772 A BE 697363 A CH 478677 A DE 1605683 A1 DK 125411 B DK 139706 B ES 341417 A1 FR 1522052 A GB 1184116 A JP 50006681 B LU 53787 A1 NL 6707601 A NO 120505 B SE 317003 B	16-07-1968 02-10-1967 30-09-1969 24-09-1970 19-02-1973 02-04-1979 01-07-1968 21-08-1968 11-03-1970 17-03-1975 20-03-1969 07-12-1967 26-10-1970 03-11-1969
GB 418293	A	17-10-1934	BE 406428 A DE 626766 C FR 781658 A NL 71500 C	20-05-1935